THE FARMER & GARDENER;

AND LIVE-STOCK BREEDER & MANAGER.

CONDUCTED BY I. IRVINE HITCHCOCK, AND ISSUED EVERY FRIDAY FROM THE AMERICAN FARMER ESTABLISHMENT, AT $5 PER ANNUM, IN ADVANCE.

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American Farmer Establishment.

BALTIMORE: FRIDAY, JUNE 6, 1834.

A RARE CHANCE FOR FARMERS AND VICTUALLERS.—A pair of remarkably fine working Oxen, 5 years old, and several fat oxen, all for sale, are expected to arrive in Baltimore to-day by the steam boat Kentucky. They are from the celebrated grazing farm of John Barney, Esq. in Delaware, whose fame for fine stock, especially cattle and sheep, is well known to our readers. Mr. Barney will remain a few days in Baltimore, and may be consulted in regard to these animals and other of his stock, at our office.

Mr. B. will also have with him a fine Bull, of the Durham short horn breed, but he is already sold. Gentlemen wishing either to purchase or to view these samples, shall be directed where they may do so, on application at our Store, in Calvert street.

MILLET.—The late frosts, and backwardness of the grass crop, has caused much inquiry to be made for Millet seed;—we have obtained a supply for our customers—see advertisement.

For making up a deficiency in the crop of grass, there is, perhaps, no article at the command of the farmer, better calculated than Millet. It is valuable for cutting and feeding in a green state; and it may be brought in at a time when it is difficult to obtain other food for horses and working oxen.

To raise this grass successfully, requires much attention to the preparation of the ground. A sandy loam is, perhaps, best adapted to its nature, when rich, and having a good proportion of fine impalpable powder in its composition; but any tolerably dry soil will answer, if well pulverised, which, we believe, is a *sine qua non* in the culture of this grass;—perhaps nothing will better pay for good culture and plentiful manure than the article mentioned. One bushel and a peck of seed should be sowed to the acre—from the 20th of May to the middle of June for the first crop, and about the middle of August for a second crop.

MUSTARD.—In another column of our paper we have given an account of the cultivation of Mustard; an article well worthy of the attention of agriculturists. It may be as easily raised as wheat, rye, or any of the annual crops, which we are in the habit of raising—it is not so great an exhauster of the ground—is much easier harvested—and at prices which we *sometimes* see it quoted in our price currents, it would realize a profit to the cultivator of twenty times greater amount than wheat would do off of the same ground. Notwithstanding the great depression in the prices of our agricultural productions in foreign markets, yet we are permitting the farmers of England and of the Rhine to tax us heavily for this, and many other articles which are equally adapted to our own climate and soil, as to those which produce them. This ought not to be. We have seen it quoted as high as twelve dollars per bushel, though less than half that price, might make it an object worth attending to, as we understand it has produced twenty bushels to the acre.

There is a manufactory of the article in this city, and at present it is under the necessity of standing still until some German emigrants come over with a supply of the seed. The foreign seed is often mixed with the seed of the wild mustard, *sinapis arvensis*, which grows wild along the road side, and is useless as a condiment.

The seed of the Sinapis Nigra may be had at the seed store attached to the establishment of the Farmer and Gardener, which is the kind preferred by the manufacturer, and the kind from which all the mustard used on our tables is manufactured. An oil is expressed from this seed, which renders the spicy qualities of the article as a condiment more pungent and durable in its effects.

A STRIKING CONTRAST.—The following is from the United States Gazette of Thursday:—

"A friend who came into Albany last week, from Schoharie county, mentions to us that the passengers were frequently invited to turn out and help the driver to get the stage through the snow drifts; and it was added, that a woman, on Thursday, the 12th of May, in attempting to go from one dwelling to another, on the Haelden barracks, became chilled, stopped on the road, and was frozen to death.

On Thursday, the 22d (just one week after the above intense cold,) the *heat* was such in this city as to be quite oppressive. At sunrise the thermometer was up to 70; at 4 o'clock, P. M. it stood at 84; and at 8 o'clock, P. M. at 80.

The contrast was almost as great, however, between the weather *here*, on the 15th and 22d, the difference of temperature, in the mornings of those two days, being no less than forty degrees!

NEW INVENTION.—We have examined the drawing of a machine to gather grain as it stands in the field without cutting. It is called the Locomotive Thresher; intended to be moved by horse power, and with the assistance of three men or boys of fifteen years of age, is calculated to go over ten acres of wheat or other grain per day, and gather say two hundred bushels, leaving the straw standing on the ground threshed as clean as is generally done in the ordinary way, thereby saving all the expense of harvesting; and by ploughing in or burning the straw, it is supposed the ground may be tilled *ad infinitum* without diminishing its fertility. Should this invention succeed, it will afford another inducement for farmers to inhabit and cultivate those beautiful prairies which abound in the far West. The ingenious inventor is Mr. John T. Vail, of La Porte, Indiana, formerly of this town.—*Rahway Advertiser.*

PRESERVING BACON—There is much said about preserving Bacon. I have noticed in all the communications on the subject, that it is recommended to have the Bacon *well dried*; and I think this is the principal thing required. If bacon is not well dried, there is nothing that it can be packed in, that will keep it sound. When Bacon is hung up for drying, boards or plank should be laid on the joists over it, in order to keep dirt or dust from falling on it, also to keep the smoke from escaping too soon. A smoke should be kept under it till it is thoroughly dry, and be continued in wet weather in the summer. Whoever will follow this plan will save their bacon.—*Louisville, Ky.* B. C.

A firm of brick-makers, in Mount Vernon, Ohio, have succeeded in getting a new brick machine into operation, and with complete success. It operates by pressure, and manufactures, as the Mount Vernon Gazette states, the very best quality of bricks out of *dry clay*. There is a pressure of more than fifty tons upon every brick; it comes from the press as smooth as plates of polished steel can produce. One horse makes twenty such pressures in a minute.

The itch is caused by an insect, white, with eight reddish legs, to the four hind ones of which is appended a bristle. It may he distinguished with the microscope, in the vesicles, in the joints, which accompany the disorder.

THE FARMER.

[From the Domestic Encyclopedia.]

MUSTARD, or *Sinapis*, L. a genus of plants, comprising nineteen species: three of which are natives of Britain: namely,

1. The *arvensis*. See CHARLOCK.

2. The *alba*, or WHITE MUSTARD, which grows in corn-fields, and on road-sides; it flowers in the month of August. This species, when cultivated, thrives best in a soil that is naturally heavy, but which has been reduced to a fine mould, by tillage: it is propagated by sowing one bushel of the seed per acre, in the month of March; it should be frequently hoed; and, when the plants arrive at a proper size for transplantation, they may be set out, ten inches apart. Mustard may be sown on the same land, for three successive years; and it always leaves the soil in a sufficient tilth for the reception of any crop. Its leaves afford a grateful food to sheep, and other cattle: the seed yields from every cwt. 33 or 36 lb. of a sweet, mild oil. Bees are remarkably attached to the flowers. This plant is likewise raised by gardeners in the winter and early in the spring, with a view to supply the table with salad.

3. The *nigra*, or COMMON MUSTARD, growing in corn-fields, on ditch-banks, and on road-sides; flowering in the month of June. The sauce called *mustard*, and in daily use at our tables, is prepared from the seeds of this species, obtained by culture, and reduced to powder. They likewise afford a considerable quantity of expressed oil, which partakes but little of the acrimony of the plant. When unbruised, they impart a very weak flavour to boiling water; but, in a pulverised state, they coagulate milk, and strongly impregnate both fluids. If a watery infusion be taken in a considerable quantity, it operates as an emetic; but, in the proportion of a table-spoonful or two, it is a gentle laxative; in this form, it has proved of service in cases of asthma, chronic rheumatism, and palsy. Cataplasms, prepared with crumbs of bread, vinegar, and pulverised mustard seed, are excellent stimulants when applied to benumbed or paralytic limbs; to parts affected with fixed rheumatic pains, and to the soles of the feet, in fevers that require such treatment. In short, mustard acts powerfully upon the nervous system, without exciting a high degree of heat: by its acrimony and pungency, it stimulates the solids, so that it is deservedly recommended for exciting appetite, assisting digestion, and promoting the fluid secretions, being greatly preferable to the generality of acrid plants of the *anti-scorbutic* class.

[From the Genesee Farmer.]

FENCE POSTS.

In a late number of the Farmer, I recommended the cultivation of the locust, believing it to be the most valuable timber for fence posts. Since I penned that article, I have reflected much on the subject, and have been led to the conclusion, that by the use of strong alkalies, several kinds of timber abounding in our country may be rendered durable in the ground.

An intelligent farmer of Cayuga county informed me, that when he entered on his farm, about thirty years ago, there stood on it a building which had been used as a potashery, and against which lay a large quantity of leached ashes. On removing it, within a few years, he found that one of the posts, on the side next the ashes, was of *basswood*, and, to use his own expression, as sound as when put in.

In building our fine packet ships, the spaces between the timber and ceiling and outer planks, are filled with salt, it having been ascertained to render the wood imperishable. In article, page 91 of 1st vol. of the Farmer, it is stated that "the Shakers at Union village have been in the habit of making oak posts as durable as locusts, by a very simple and easy process. This is merely to bore a hole in that part of the post, which will be just at the surface of the earth, with such a slope as will carry it just below the surface, and fill it with salt."

With the exception of the red cedar, which is found on the islands and shores of our lakes, we have no timber that will remain sound in the ground many years, unless measures are taken to neutralize the acid contained in the wood, in the part buried in the earth. It appears, by the above statements, that the ley of wood ashes, and salt, have that effect; and we have reason to believe that lime would answer the same purpose. But which will answer best can only be obtained by experiment. Query—Does not the ley, salt, and lime, drive out and occupy the place of the natural moisture? I believe it to be a fact well established, that seasoned posts are more durable than green ones, and conclude the reason is, that there is much less of the acid remaining.

I will now propose to the readers of the Farmer, that those of us who have leisure and opportunity, should make the following experiment: Procure sound oak, chestnut, or white cedar posts, and when they are well seasoned, divide them into three parts. Of that part to be put in the ground, let one-third be in strong ley, one-third in a strong brine, and one-third in lime water, a sufficient length of time to neutralize the acid. Or, if this be attended with too much trouble, set one third with leached ashes, to within six inches of the surface, then strong ashes—let one-third have salt applied, as done by the Shakers, and the other surface to be set with lime from the surface to the depth of six inches, for it is at the surface of the ground that posts decay. By such an experiment, in addition to the benefit to ourselves, we should have the pleasing reflection that we have rendered one to the country at large.

I should be sorry if the above suggestion should divert the attention of any of our farmers from the cultivation of the locust, my only object in penning this being to inform them how to supply themselves with durable posts until their locusts shall have obtained a proper size.

Several writers for the Farmer have asserted that posts last much longer if the end which was upwards when growing be put in the ground. I consider this worthy of further experiment.

ONTARIO.

[From the Penny Magazine.]

BUTTER.

The various circumstances attending the introduction and use of butter in antiquity have been investigated by Beckmann, with great learning and industry. The conclusion at which he arrives is, "that butter was not used either by the Greeks or Romans in cooking, as is every where customary at present. We never find it mentioned by Galen or any other ancient medical writer, as *food*, though they have spoken of it as applicable to other purposes. No notice is taken of it by the Roman epicure, Apicus, who wrote on cookery; nor is there any thing said of it in that respect by the authors who treat of agriculture, though they have given us very particular information with respect to milk, cheese, and oil.

"This as has been remarked by others, may be easily accounted for, by the ancients having accustomed themselves to the use of good oil; and in like manner butter is very little employed at present in Italy, Spain, Portugal, and the southern part of France." Butter is very extensively used in this and most other northern countries; that of England and Holland is reckoned the best.

The production and consumption of butter in Great Britain is very great. The consumption in the metropolis may, it is believed, be avaraged at about one half pound per week for each individual, being at the rate of 20 lbs. a year;—and supposing the population to amount to 1,450,000, the total annual consumption would (on this hypothesis) be 37,700,000 lbs. or 16,830 tons; but to this may be added 4,000 tons for the butter required for the victualling of ships and other purposes, making the total consumption in round numbers 21,000 tons, or 47,040,000 lbs. which, at 10*d* per lb. would be worth £1,960,000.

The avarage produce per cow of the butter dairies is estimated at 168 pounds a year; so that supposing we are nearly right in the estimate, about 280,000 cows will be required to produce an adequate supply for the London market.

Butter made in hot countries is generally liquid. In India it is called *ghee*, and is mostly prepared from the milk of buffaloes; it is usually conveyed in duppers or bottles made of hide, each of which contains from ten to forty gallons. Ghee is an article of considerable commercial importance in many parts of India.

The Arabs are the greatest consumers of butter in the world. Bucknard tells us, that it is a common practice among all classes to drink, every morning, a cupfull of melted butter or ghee; and they use it in an infinite variety of other ways. The taste for it is universal, and even the poorest individuals will spend half their daily income that they may have butter for dinner, and butter in the morning. Large quantities are annually shipped from Cosseir, Sonakin, and Massona, on the west coast of the Red Sea, Djidda, and other Arabian ports.

[From the Genesee Farmer.]

PLANTS DERIVE MOST OF THEIR CARBON FROM THE AIR.

"E." doubts if plants derive most of their carbon from the atmosphere. He says, "Minerals of themselves cannot impart fertility." On what principle then would he explain the fact, that some soils are perpetually fertile? The carbonacious parts, under a system of severe cropping, are soon exhausted.

Is "the quantity of carbonic acid gas in the atmosphere *about the same at all times and in all*

places?" Professor *Brande* says, "Atmospheric air contains other substances, which, however, may be regarded as *adventitious*, and the quantity of which is *liable to vary*; of these carbonic acid [is one of] the most important—*varying in quantity from* 1 *to* 0-1 *per cent.*" This shows a difference of from 10 to 1; but Dr. *Turner* makes it much greater. He says, "Carbonic Acid never exceeds 1 in 1000 parts [of the atmosphere] provided there is a free circulation of air; and generally amounts only to 1-1000 or 1-2000 of the whole. I leave "E." to draw the inferences.

There are *several kinds* of prairies in the west; and all have *not* "a herbage whose roots form a perfect matter (as "E." supposes) upon the surface." One of the most fertile has for a long period been checked over with *naked spots*, situate between bunches of perennial weeds and of coarse grass. Its *blackness* is almost the only thing that would lead us to suspect the presence of vegetable matter, which, however, is a fallacious guide; and this becomes evident when we subject the soil to experiment. On removing the sand, and burning the finer parts, it loses very little in quantity, and from *black* turns to a *reddish brown*. It therefore cannot be much indebted for its extraordinary fertility when cultivated, to carbonaceous matter. 'One crop of corn would contain many times as much carbon as had previously existed in this soil.'

Plants are not equally healthy in all soils; and if not healthy on the Hempstead sands, they cannot flourish, though food may be presented by every particle of air that approaches. The richest pasture will not fatten a sick ox.

Does "E." believe that plants feed on "organic matter?" If so, where are the proofs, independent of speculation and conjecture?

Some meadows are mowed for a long series of years; tons after tons are carried off, and no manure returned to supply the waste; yet these meadows are not impoverished, and no diminution of their fertility is observable. The soil contains as much carbonaceous matter as it did at the commencement; and we can only refer to the atmosphere as the grand store-house from which vegetation has drawn its supplies.

It is obvious to common sense that a reservoir that is constantly receiving, must approximate towards fullness, except it has some vent or outlet. Now the atmosphere is a reservoir into which carbonic acid gas is continually pouring from almost every part of the earth's surface—from combustion, and from fermentation; yet there is no reason to believe that it now contains more than it did two thousand years ago. Where then is the outlet to this reservoir? "*The only known process*," says Dr. *Turner*, "which tends to prevent an increase in its proportion [of carbonic acid] *is that of vegetation.*" AN OBSERVER.

When I see a girl reject the addresses of a respectable young man, who owns a farm, goes to meeting, and pays his debts, for one who visits the theatre, and spends his money faster than he earns it, I think to myself, she has not got much gumption.

Although the tongue has no bones, it breaks bones.

THE GARDENER.

FLOWERING BEAN.—The flowering bean is little known in this country, other than as an ornament. We are informed by an experienced gardener from England, that it is there considered as the most valuable of all their pole beans; and much more in use than the horse or Lima bean. Its great value consists in its coming in after the common string beans are done with, and will then continue to give a plentiful supply of green pods, in which way it is to be used, until the frost destroys it, and it will stand a harder frost than any other of the kind. It furnishes the best bean for pickling.

HORTICULTURAL SOCIETY.

At the anniversary meeting of the Horticultural Society of Maryland, held on the 10th of May, the following officers were elected for the ensuing year, (commencing on the first Saturday in June,) viz.

B. I. COHEN, *President.*

D. HOFFMAN,
Z. WATERS,
JOS. KING, JR.
J. P. KENNEDY,
} *Vice Presidents.*

GIDEON B. SMITH, *Cor. Sec.*
PHILIP T. TYSON, *Rec. Sec.*
E. KURTZ, *Treasurer.*

Counsellors.

Henry Schrœder,	Dr. Wm. Fisher,
Dr. Thos. Edmondson,	J. P. Kraft,
Samuel Feast,	John S. Skinner,
John Feast,	Charles C. Harper,
Evan P. Thomas,	C. Wethered,
William G. Thomas,	Dr. Julius T. Ducatel,
James Moore,	Geo. W. Dobbin,
Dr. A. B. Cleveland,	Samuel W. Smith,
Dr. R. W. Hall,	George Duncan,
Dr. Eli Geddings,	John B. Bastian,
E. W. Colburn,	George H. Keerl,
Dr. J. I. Cohen,	Alexander Lorman.

The following are the standing committees of the Council for the ensuing year:

On the Culture and Products of the Kitchen Garden—E. P. Thomas, chairman; James Moore and John Feast.

On Fruits, Fruit Trees and Vines—Geo. W. Dobbin, chairman; Samuel Feast and R. Sinclair, Sen.

On Ornamental Trees and Shrubs, Flowers and Green Houses—Dr. Tho. Edmondson, chairman; Edward Kurtz and Wm. G. Thomas.

On the Library—Dr. W. Fisher, chairman; Dr. J. T. Ducatel and Dr. J. I. Cohen.

On Finance—Dr. Thos. Edmondson, chairman; E. P. Thomas, and C. E. Wethered.

HORTICULTURAL SOCIETY OF MARYLAND.

Report of the Second Exhibition.

The second annual exhibition of the Maryland Horticultural Society was held on the 14th, 15th, and 16th May, in the spacious saloon of the Athenæum, and was attended with the most pleasing results, both to the Society and the numerous visiters; so much so, indeed, that the Society have abundant cause to congratulate the citizens of Baltimore on the good effects of this infant association, already visible.

The collection of CULINARY VEGETABLES was not very great, but there were several articles of unsurpassed excellence. The Cauliflowers presented by Thomas Dixon, gardener to Mrs. Donnell, of Willowbrook, were superior to any heretofore produced here, and equal to the best raised in Europe. The early York Cabbages presented by Thomas Doran, were unequalled by any heretofore produced at this season of the year. These two items indicate a spirit of industry, attention and skill, in their cultivators, highly creditable to them, and the Society deems the expression of its sense of their merits in this mode due them, in addition to the Society's medals. Nor should we omit to notice the Cauliflowers presented by Edward Keen, and Thomas Dorsey, and the early York Cabbages by the same, both of which were of excellent quality.

The following articles also were excellent, viz: superior Asparagus, by Peter Steuart; Potatoes, Radishes, Asparagus and Lettuce, by Peter Nantz; Radishes, by Thomas Doran; Carrots, Cabbage and Lettuce, by Thomas Dorsey; Cabbage and Lettuce, by Edward Keene; Cucumbers, Potatoes and Helianthustuberosus, (Jerusalem Artichoke) by Lawrence Herring, gardener to Wm. H. Freeman, Esq.; Radishes, Cabbage and Lettuce, by Caleb Whittemore; Cucumbers and Beans, by Mr. Wilhelm, gardener of John Ridgely, Esq. of Hampton; a fine bunch of Rhubarb, (Rheum undulatum) by Gideon B. Smith, and Green Peas, by Robert Blanchard, gardener to Col. B. C. Howard.

Premiums awarded for the products of the Kitchen Garden.

For the best Cauliflowers, a silver medal valued at $5, to Thomas Dixon, gardener to Mrs. Donnell, of Willowbrook.

For the best Asparagus, forced, a silver medal, valued at $5, to Wm. Blanchard, gardener to Col. B. C. Howard.

For the best Asparagus, from the open ground, a silver medal, valued at $2, to Peter Steuart.

For the best Rhubarb, for tarts, a silver medal, valued at $5, to Gideon B. Smith.

For the best Carrots, a silver medal valued at $2, to Thomas Dorsey.

For the qest Lettuce, forced, a silver medal valued at $3, to George Duncan.

For the best Lettuce, open ground, a silver medal, valued at $2, to Edward Keen.

For the best Onions, from seed same year, a silver medal valued at $3, to Samuel Feast.

For the best Tomatoes, a silver medal valued at $3, to Charles Scheigle.

For the best Beets, a silver medal valued at $3, to Thos. Dorsey.

For the best Early York Cabbage, a silver medal, valued at $2, to Thos. Doran.

For the best bushel of Irish Potatoes, with mode of cultivation, the Amateur premium, a silver cup, valued at $10, offered by Dr. Thos. Edmondson, to Caleb Whittemore.

For the best Cucumbers and Snap Beans, a floating premium medal of $5, to Mr. Wilhelm, gardener of John Ridgely, Esq. of Hampton.

For the best new Potatoes, a floating premium medal, $5, to Peter Nantz.

For Cucumbers and Early Potatoes, a floating premium medal, $5, to Lawrence Herring, gardener to W. H. Freeman, Esq.

We notice with commendation, some very fine Rhubarb plants (Rheum raponticum,) and Garden Leeks, sent by Capt. Wm. P. Matthews, of the Eastern Shore of Maryland.

FRUIT.

The season of our exhibition was that of flowers, rather than fruit, and therefore we had but few objects of interest in this department, except from the green-houses. The severe frost in the latter part of April had materially retarded the Strawberries: notwithstanding which, however, we had some very fine specimens from Robert Dore, J. B. Smith, and J. Coates. It was too early for Gooseberries, but there were some fine specimens presented by Samuel Feast, consisting of about 25 select varieties, and by Richard Valentine, gardener to Robert Oliver, Esq. The latter were very large, and both those of Mr. Feast and Mr. Valentine afforded indications of great excellence when they shall have arrived at maturity. Fair specimens of the Catawba, Isabella, Bland, and Constantia Grapes, were exhibited by Robert Sinclair, Sen.

Of green-house fruit, the specimens were very superior, particularly the Lemons, Oranges, and Limes, of Mrs. Edmondson, Mrs. Emory, Miss Eliza Schrœder, Mr. Mann, and Mr. Ackerman, to each of whom the thanks of the Society are due for their exhibition.

Premiums awarded for Fruit.

For the best Strawberries, a silver medal, $3, to Robert Dore.

For the best Apricots, a silver medal, $3, to Andrew Clary, gardener to Major Isaac M'Kim.

For the best Grapes, (native,) a silver medal, $5, to Robert Sinclair, Sen.

For the best Gooseberries, a silver medal, $4, to Richard Valentine, gardener to Robert Oliver, Esq.

ORNAMENTAL DEPARTMENT.

In the ornamental department, we were relieved from the restrictions of the season and location, with which we were hampered in those of vegetables and fruits, and all climes and all seasons became tributary to our festival of flowers. The collection of rare and valuable exotics was very extensive, as also was that of indigenous plants. The following are some of the most prominent articles:

From the collection of Mrs. Edmondson, a Rhododendron-ponticum—a splendid specimen, in full bloom, the largest we have seen: a splendid Viburnum chinensis; Aloe arborea, 8 feet high; Ardisia crenata; several fine specimens of Pelargoniums, and various others.

From the collection of Mrs. Emory, a very large Strelitzis regina, a splendid collection of Pelargoniums, and fine specimens of Pittosporum tobira, carmine cluster rose, Banksia Grandis, and other species, Melaleuca, imbricata, Aster argophyllus, Daphne dauphine, &c.

From the collection of St. Mary's College, fine specimens of the Musa Sapientum, and the Musa rosacea (Banana and Plantain tree) the latter in flower, Ficus nitida, Dracena fera, Encaliptus ovata, Holygala Speciosa, Bromelia Caracas, or Caracas pine apple, Protea Strobelina, several specimens of acacia, metrosideros in flower, Bannisteria fulgens, &c.

From the collection of Edward Kurtz, a splendid specimen of the Azalea indica, near six feet high and profusely covered with bloom. For this plant the Society's medal for the finest and rarest Exotic, was awarded to Mr. Kurtz, besides which he exhibited fine specimens of correa pulchella and virid flora, Lilium longiflorum, Thea bohea, and viridis, (bohea and green tea plant) Olea fragrans, seven splendid specimens of Pelargonium, Azelea cuprea and pontica pallida, Verbena mellindris, magnolia fuscuta and pumila, Ardisia crenata, Fuschia arborea, &c.

From the collection of George Ackerman, a splendid specimen of Cactus Speciosissimus, near five feet high, with two full blown flowers, and a large number of buds, and fine specimen of cactus Speciosus. These plants were in a fine state of perfection.

From the collection of Zebulon Waters, variegated, curled leaved, and China orange trees; 25 specimens of pelargoniums, 5 of aloes, 2 of canna indica, 2 of Phlox, Anemone thalictroldes, *double*, Cactus Speciosus and quadrangularis, Mimulus, moschata, Rhododendron poncticum, Hibertia, volubilis, Amarylliis rutila and fulgida, Malaxis, lilii, folia, Heliotropium peruvianum, Eugenia jambos and myrtifolia, Magnolia grandiflora and purpurea, &c.

From the collection of Mr. E. P. Thomas a fine cactus Jenkinsonia, Cupressus Sempervirens or Cedar of Goah, a most beautiful evergreen, which excited universal admiration, Cycus revoluta, Eugenia myrtifolia, Ruelila Speciosa, Magnolia purpurea, and fuscata, Pe largoniums of many varieties, Banksia cricoides, Myrtle leaved Orange, full of fruit, (a very fine specimen,) Ardisia cranata, &c.

From the collection of Mr. Wm. G. Thomas, a fine Metrosideros marginata, Rhododendron ponticum, Myrtle leaved Orange, in full fruit, Jasmimum revolutum, &c.

From the collection of Mr. Joseph King, jr. a fine specimen of Jasmimum revolutum, Punica granatum, Plumbago, capensis, &c.

From the collection of Mr. Geo. H. Keerl, a very fine Rhododendron ponticum, Pittosporum tobira, &c.

From the collection of Mr. B. I. Cohen, a splendid specimen of Ficus elastica, 25 feet high and well branched; Yucca aloefolia, ten feet high; Erithrina crista galli, Aloe corina, Dianella cerulea, Agabantpus umbellatus, Punica, granata, Justicia alhatoda, Albuca altissima, &c.

From the collection of Mr. Henry Schrœder, a very fine Yucca aloefolia, Cycas revolutum; Vinca major, a fine fig tree in full fruit, lemon tree, orange trees, &c.

From the collection of Mr. Robert Oliver, a splendid cactus tuna, 12 ft. in circumference, finely fruited, a fine air plant, Oncidium biflora, &c.

From the collection of Mr. Samuel Feast, a large number of rare and valuable plants, among which were fine specimens of Laurus cinamomum (cinnamon tree,) and camphora, (camphor tree,) Amaryllis Johnsoniensis and longiflora, Calceolaria salvifolia, Metrosideros, marginata and salicifolia, Cactus spiciosus, cylindricus, and Brazilien-sis, Escholizia, californica Erica pubescens minor and verticilata Brumia capitata, Bletia, Verucunda, Leptospermum Multiflora and Baratum, Geum chiliensis, acasia, armata augustifolia, &c. and several varieties, of Ixias, Strelitzia regina, Fuphorbia nerifolia, a large number of Pelargoniums of the most beautiful and rare varieties, Musa rosacea (Banana tree,) Sarracenia flava and variolus, Acacia heterophyla, Melaleuca pubescens, Calothamnus guadrifida, Eucaliptas ovata, Dracena fera, roso sempervirens, cactus Hexacanthus, &c.

From the collection of Mr. J. Feast, the number of specimens was also very large and rich; among them were Justicia persicifolia, Hesperis alba *pleno*, Budlea globossa; banksia cunninghamia, and verticellata, cassia, 2 varieties; Metrosideros grandiflora, styphilandis, &c. cactus speciosus, and many others; Aloe varigata and arborescens, Sac, charum, officinale, (sugar cane,) Magnolia fuscato, Rhododendron ponticum, Sterculia platanifolia, Bletia vericunda, Andropogon paniculata, many varieties of Erica, upwards of seventy varieties of Pelargoniums, (Geraniums,) Mango tree (Mangifera indica) several varieties of roses, clematis florida *peno* and purpurea, Renealmia nutans, Melalecua, 3 varieties; Pi tosporum tobira, Musa roacea, (Banana tree) Lilium martogon and longiflora. Moss rose, Protea tomentosa, Justicia coccinea and cerulia, Calothamnus guadrifida, &c.

From the collection of Mr. James Wilkes a fine champney rose, Pelorgoniums, Rhododendron ponticum, Viburnum nitidum, Ficus elastica, Westringearos marinifolia, &c.

From the collection of Mr. J. B. Bastian, a splendid specimen of Cactus Speciosissimus in bloom, Cactus Cylindrica, and hexangularis, Eugenia uniflora and Jambos, Plumbago capensis and rosea, and a fine collection of other plants.

From the collection of Mr. Thomas Dorsey, some fine specimens of Aster argaphyllus, geisomeria longiflora, Clematis florida, Thea bohea (bohea tea plant,) Calceolaria integrifolia, Jocobea elegans, gnaphaliums, rosa adamsonia, Ficus clastica, Jasmimum revolutum, Leptosperum, Nandina domestica, Bouvareia, tryphylla, Ixias gladiolus undulatus, Albuca altissima, Tradescamtia crassifolia, Pelargoniums, Aucuba japonica, Mesembrianthemum trinellum, Aloes, four varieties, Fuschia macrostema, &c.

Premiums awarded in the Ornamental Department.

For the best conducted Green house, a silver goblet valued at $20 to Mr. Samuel Feast.

For the best collection of Camellias, a silver cup valued at $10, to Mr. John Feast.

For the best collection of Pelargoniums, a silver medal $5, to Mrs. Thomas Emory.

For the best collection of Chrysanthemums, a silver medal $3, to Mrs. Geo. H. Keerl.

For the best collection of Primula Polyanthus, a silver medal $2, to Mr. John Feast.

For the finest and rarest Exotic, a silver medal $5, to Mr. Edward Kurtz.

For a choice and rare collection of green house plants in fine condition, the Society's optional premium, a silver medal $5, to J. B. Bastian.

On Thursday, 15th, at 12 o'clock, an elegant address was delivered by J. H. B. Latrobe, Esq. on the nature and objects of the Society, which was listened to with much pleasure, by a very

numerous audience of ladies and gentlemen. It is expected that the address will be published. At the conclusion of the address, the award of premiums was read; and in the evening the ceremony of distributing them among the successful competitors was performed, in which JOHN P. KENNEDY, Esq. officiated by invitation, to witness which, a very numerous company of ladies and gentlemen attended. The thanks of the Society are due to Mr. Latrobe and Mr. Kennedy for the very handsome manner in which they fulfilled the objects of their respective appointments.

The thanks of the Society are due to the many ladies whose contributions to the exhibition tended so much to enhance its value. In particular they may be permitted to refer to Mrs. Edmondson, Mrs. B. I. Cohen, Mrs. Emory, Mrs. Power, Mrs. Muschett, Mrs. Forney, Miss Eliza Schrœder, and Miss Moody.

The valuable contributions of Specimens and Seeds collected by Mendas I. Cohen, Esq. in Asia, Syria and Egypt, and presented to the society, attracted much and deserved attention. Among them was a Lupin, the seed of which was sent by Mr. Cohen from Egypt, already in bloom at the exhibition. The *Dhoura*, a species of the cereal grain of Egypt, and the Nubian cotton excited considerable interest.

A beautiful specimen of fine cloth, made from the fibres of the leaves of the pine apple, from Manilla, resembling the finest linen cambric, was presented by Miss Eliza Schrœder.

In conclusion, the society's thanks are due to the committee of arrangements, particularly to Dr. Thos. Edmondson the chairman, and Messrs. Saml. and John Feast, for the excellent and tasteful arrangement of the exhibition, and for the prompt and efficient manner in which they performed the arduous duties imposed on them.

[From Goodsell's Genesee Farmer.]

BLIGHT OF PEAR TREES.—In one of your numbers which is not before me, you notice the general opinions, of the cause of the decay of Pear trees by what is commonly termed fire blight.

I have seen many opinions on the subject, but none that I believe to be the true cause, which I attributed to the bursting of the sap vessels. I will give the proofs in support of my opinions.

About twenty-five years since I bought a lot in Hartford, Connecticut, on which there was two large pear trees. They had been neglected, and wanted pruning, but appeared in good health, although they grew but moderately, in consequence of the earth being very hard and sterile about them. I loosened the earth about them, and manured them very late in September, and in March next pruned them faithfully, and the growth through the spring, was very strong and rapid. During the most vigorous part of their growth, I found them attacked by what is termed *fire blight*.—Limbs that were in full vigor one day were blighted the next. My first apprehension was, that they were stung, or bored by some poisonous insect, but on examination, and dissection, I found in all cases, by the help of a strong magnifying glass, that the sap vessels, were turned of a dark chesnut color longitudinally, since which time, I have seen many circumstances that have confirmed my opinion.

A gentleman in Hartford purchased a farm in the vicinity, on which was a large pear orchard, which had long been in bearing; the ground was covered with green sward which had been pastured for many years. The trees were in good health.—He ploughed a part of it, and put it in a high state of cultivation. The trees grew very rapid, were attacked, as the others above mentioned, and some of them entirely destroyed, while those which were in that part which remained in grass were entirely free.

In the garden where I am now, there are twelve large pear trees of different sorts, which when I came here five years since, were in good health. The garden was in a neglected state, the soil was worn out.—I put it in a high state of cultivation, the trees grew rapidly and were all attacked with the blights, and I was obliged to take the rich earth away from them and replace it with poor soil, which saved them all with the loss of a few limbs, and they are now doing well.

From the above it will be seen that the cause is a sudden change from a stinted to a rapid growth, and the sap vessels not being as elastic as in other trees, burst and destroy the tree, but may be easily prevented by care being taken, not to increase the growth too rapidly.

Other trees are affected in a degree in the same manner. The quince is liable next to the pear.

NATHAN RUGGLES.

New Haven, (Ct.) Feb. 27, 1834.

ON CATERPILLARS, *by George Webster, of Albany, N. Y.*

From my experience, I am fully satisfied our fruit trees may be preserved from that dreadful insect, the caterpillar, in a vary sure and easy way. In the year 1804, the large elm at our corner was nearly stript of its leaves by a small caterpillar. Various modes to destroy them were made use of, such as covering the trees with tar, fish oil, and drowning their nests, but without any good effect. Some day in the month of July, I was standing at our door, when a gentleman from Niskayuna was passing by. He accosted me in words like these: "George, 'tis a pity to lose so fine a tree." In answer—"We made use of various articles to destroy them, but without success."—"Send," says he "and get a little sulphur and bore into the tree about six inches, and fill it with sulphur and my word for it, not a caterpillar shall be seen after forty-eight hours."—"Will you stay and see it done." "I will," says he. The hole was bored, the sulphur put in, and a piece of wood the size of a cork drove in strongly, to prevent the sap or sulphur oozing out. In a less time than he mentioned, there was not the vestige of a caterpillar on the tree. Soon after, a large caterpillar appeared on our poplars, in front of my house: every tree was served in the same way as the elm had been, and the result the same—while my neighbors cut down those fine trees, because they were very much alarmed that the insect was that very venomous reptile called "the asp."—A few days afterwards I discovered that a very beautiful plumb-tree in my yard was attacked by the caterpillar; the same course was pursued, and the result the same. I have followed this practice every year since 1805, when I discovered these insects on my trees, and never has there been a caterpillar on my trees after forty-eight hours. It has been tried in New-York and Pennsylvania, where I have been present, and in the western parts of this state. In no case has it to my knowledge or belief, failed. Two men are sufficient to go through an orchard or forest of 200 trees in a day.

P. S. I have a strong presentiment in my mind, that if applied to our peach, plum or cherry trees, it would prevent the black rust.

[We tried this experiment on cherry trees in Cesar-Creek township in this county, in the month of June last; and found that in less than forty-eight hours there was not a worm on the trees; nor did they return. ED. INDIANA WHIG.]

THE BREEDER & MANAGER.

[From Dickson's Live Stock and Cattle Management.]

Appellatives, or usual names.—The common names of the Neat Cattle, are, Bull, Ox, and Cow. The bull is chiefly kept for the purpose of propagation; and until one year old, while he sucks, has the name of *bull-calf*, after which, *stirk*, or *yearling bull*, and then *bull* of two or more years till six, when he is *aged*. The ox is the castrated male. A young castrated male, before the first year, is called an *ox*, or *stot-calf*, then a *yearling-stot*, or *stirk*—(stot and stirk are provincial terms)—at two years old a *steer*, or *twinter;* from two to five or six years a *bullock*, and after that an ox: but in some districts *bullock* is absurdly the general term for any full-grown cattle, male or female. A female, while sucking, is called a *why*, or *cow-calf;* after the first year, a *heifer*, *quy*, or *why;* at four years old, a *cow*, which she ever afterwards retains: and a castrated female is denominated a *spayed* or cut heifer or cow. Certain of the Welch and Scotch cattle, of rather a coarse and hardy kind, bear the appellation of *runts*.

Some sorts of neat cattle reach their perfection or full growth much sooner than others, as at five or six years old and earlier, others not until the age of eight or nine; but early maturity is in general a great advantage, and a mark of goodness in the breed or kind.

Teething.—The teeth, with the horn, shew the age of neat cattle. They are destitute of front teeth in the upper jaw; but the mark of age, as in some other animals, is to be found in the corner incisory teeth of the lower jaw. The first front teeth, or calves' teeth, remarkable for their whiteness, are shed at two years old, and replaced by others not so white. Every succeeding year two other calves' teeth, next to the front, are also replaced, and at five years old, the incisory or cutting teeth, being all renewed, are of good length, whitish, and even. From this period, as in the horse, the teeth are gradually filling up, until six years old, when the beast is properly full mouthed. The teeth afterwards become discoloured by age, and are sometimes long and irregular.

The age of neat cattle may likewise be determined when three years old by the horns, which are shed, and replaced by others that continue. In the fourth year a horny ring, or cylinder, appears near the head, as the bud or basis of the horn. In the course of the year this ring moves, being pushed forward by another which succeeds it; a pro-

cess which goes on to the end of the animal's life, its years being determinable by the number of the rings upon the horns, reckoning three years for the first. For the purpose of concealing the animal's age, dealers and jobbers very often obliterate these rings by shaving and dressing the horns.

Chewing the Cud, in Neat Cattle.—This is the operation of re-chewing the swallowed food, by which means it is more effectually broken down and mixed with the saliva. Ruminant animals have no fore teeth in the upper jaw; but the gums are hard, and the tongue is rough. This roughness is occasioned by numbers of long sharp-pointed protuberances called *papillæ*, with which the whole substance of it is covered. These protuberances anatomists have observed to be turned towards the throat; so that by their means the food, having once got into the mouth, is not easily pulled back or returned. The animals, therefore, supply the defect of teeth by wrapping their tongues round the tufts of grass, and so by pressing such matters against the upper jaw, keep them stretched, and cut them with the teeth of the under jaw; then without much chewing throw them down into the œsophagus, or gullet; the tube and cavity which conveys the undigested aliment to the first stomach.

It has been remarked, that the retrograde motion of the œsophagus in ruminating cattle, such as cows, sheep, goats, and others, renders them capable of bringing up the softened grass from their first stomachs. But that when these animals fill themselves too full of clover and of other grass, or of some rich young vegetable substances, which are liable to run into fermentation, this stomach becomes distended with air, and death frequently ensues. This leads to the affection or disorder called hoven, which will be mentioned in its proper place.

It is well ascertained, that all animals which ruminate must have more stomachs than one; some have two, some three, and the ox tribe no less than four. The food is carried directly down to the first, which lies upon the left side, and is the largest of them all, vulgarly called the paunch, or great bag. There are upon its internal surface a vast number of small blunt-pointed processes, by which the whole has a general roughness, and the surface is extended to several times the size of the paunch itself. The food, by the force of the muscular coat of this organ, and the liquors poured into it, is sufficiently macerated; after which it is forced up from thence by the inverted action of the œsophagus, or gullet, into the mouth, to be further chewed, and thence it is again returned, made very small by further mastification, being completely united with the saliva; and this is what is properly called rumination, or chewing the cud. For this purpose those teeth called *dentes molares*, or the grinding-teeth, instead of being covered with a thin crust, have an enamel on them consisting of perpendicular plates, between which the bone is bare, and constantly wearing faster than the enamel; so that the teeth remain good to an extreme old age; and the rumination is carried on for a long time, without any danger of spoiling them. After rumination the food descends by the gullet into the second stomach. The œsophagus opens indifferently into both, and ends exactly where the two stomachs meet; and there is a smooth gutter with rising edges, which leads into the second stomach, from thence to the third, and also to the fourth: into any of which the animal can direct the food at will. The second stomach, which is the anterior, or smaller, is called the honey-comb, from its consisting of a great number of cells on its internal surface, of a regular pentagonal figure, like a honey-comb. Here the food is farther macerated, and thence carried forward into the third, which is generally known by the name of the many-plies, or many-folds, because the internal surface rises up into a great many plies or folds, according to the length of this stomach. Some of these folds are longer than others; first two long ones on each side, and within these, two shorter in the middle, and so on. There are numberless glandular grains, resembling millet seeds, dispersed all over the folds, from which some call this stomach the millet. From thence it passes into the fourth stomach, commonly called the maw, being the place where the chyle is formed, and from which the food descends immediately into the intestines. The bowels of these animals are of considerable length, in proportion to the bulk of their bodies. Digestion is accompanied with a peculiar kind of ruminant action, the intention of which seems to be, that the food may be sufficiently broken or ground into small particles, and thus rendered fully capable of being acted upon by the stomach; for it is observed that a calf does not ruminate while it is fed only upon milk, though the action takes place as soon as it begins to eat solid food. But it is to be observed, that as long as a calf feeds only upon milk, the food descends immediately into the fourth stomach. The rumination does not take place till after the animal has eaten a considerable quantity; when it lies down, and begins to chew, though the operation will take place in a standing posture, if it cannot lie down.

In this action a sort of ball or lump is observed to rise from the stomach with great velocity, almost as if shot from a musket. This ball, or lumpy portion of the food, the animal chews very accurately, and then swallows it again, and so on alternately, until all the food it has eaten has undergone the same operation. This is easily explained by the structure of the œsophagus, which has one set of fibres calculated for bringing up the grass, or food, and another for repelling it down again.

It is evident, therefore, that by means of rumination, the cow, and all ruminating cattle, extract a much larger portion of nourishment from their food than those animals which do not ruminate; and hence they are contented with much worse fare, and smaller quantities of it than the horse; hence, too, their dung being much more exhausted of its fine and rich parts than that of the horse, proves much inferior to it as manure for land.

By the number of stomachs, and the power of rumination thus given to animals of these kinds, which feed principally on long, tough, dry, hard matters, many different advantages are gained:—in consequence of the more full maceration, and intimate mixture of the salival fluid and such materials, much more nourishment is derived from a given quantity of food, and the animal suffers much less inconvenience from the delay of the substances in the bowels.

SECTION II.—*Principles and Practices in Breeding Neat Cattle, and other sorts of Live Stock.*

With a view to the improvement of the several breeds and kinds of live stock, different principles, practices, and systems of management, have been proposed; but those which appear to be the most suitable, correct, and proper for the purpose, to have the greatest foundation in practical experience, and to be the result of the latest and most full enquiry on the subject, are those given by Sir John Sebright, in his valuable letter on "the Art of improving the Breeds of Domestic Animals." This work, together with the remarks of several judicious farmers and breeders, who have investigated and explained the principles and practice recommended therein, establish beyond all doubt the following facts and axioms:—

1. That the males and females, intended to breed together, should be provided with particular attention to the good or bad qualities of each, or "in reference to each other's merits and defects."

This is considered essentially necessary, as it is not always found, "by putting the best male to the best female, that the best produce will be obtained;" as should they each of them have a disposition or inclination to the same fault or imperfection, in however slight a degree, it will commonly preponderate and prevail to a much greater in the offspring, and thus decrease their value. The same faults or defects in the different sexes are unquestionably to be equally as much avoided and prevented, as the excellencies and perfections of them are to be united and combined.

2. That a breed or variety of any sort of animals may be considered "to be improved, when any desired quality has been increased by art, beyond what that quality was in the same breed, in a state of nature."

The increasing the natural good qualities and properties of different breeds and sorts of animals, should be the first consideration of the breeder, such as "the swiftness of the race horse, the propensity to fatten in cattle, and the fine wool in sheep, improvements which have been made in particular varieties of the several different species to which these animals belong." By such means, improved values are given to different sorts of animals as live stock.

3. That after a breed or variety has been rendered, in the above manner, as perfect as it is capable of being made, "what has been produced by art, must be continued by the same means; for the most improved breeds will soon return to a state of nature, or perhaps defects will arise which did not exist when the breed was in its natural state, unless the greatest attention is paid to the selection of the individuals which are to breed together."

The same care, nicety, and exactness must be bestowed, in keeping up, as in forming the improvement itself; the smallest inclination or tendency to deviation or imperfection in the stock is to be attended to the instant it begins to make its appearance, in order that it may be counteracted "before it becomes a defect," and be corrected

before it has attained too high a degree, but at the same time without carrying correction too far on the contrary side.

4. That full and proper regard is not only to be constantly had to the "qualities apparent in animals selected for breeding, but to those which have prevailed in the race from which they are descended, as they will always shew themselves, sooner or later, in the progeny, it is for this reason that we should not breed from an animal, however excellent, unless we can ascertain it to be what is called *well bred;* that is, descended from a race of ancestors which have, through several generations, possessed, in a high degree, the properties which it is our object to obtain."

It is of the most essential importance, that the animals selected for breeding be not only *good* in themselves, and capable of being traced to parents which are the most pure and perfect of their kind, but that every intervening link in the chain of their ancestry should likewise have been good.

5. That "if a breed cannot be improved, or even continued in the degree of perfection at which it has already arrived, but by breeding from individuals so selected as to correct each other's defects, and by a judicious combination of their different properties, a position that will scarcely be denied, it follows that animals must degenerate by being long bred from the same family, without the intermixture of any other blood, or from being what is technically called *bred in and in.*"

Therefore, connecting animals for breeding that have too near or close a relation in blood to each other for a length of time should be avoided, though animals of different families of the same sort may often be united with propriety and advantage.

6. That "if the original male and female were of different families, by breeding from the mother and the son, and again from the father and the daughter in the same way, two families sufficiently distinct, might, it is supposed, be obtained; for the son is only half of the father's blood, and the produce from the mother and the son will be six parts of the mother and two of the father."

In this manner of combining them, they would not be sufficiently near in their kindred or blood as to deteriorate their offspring or stock.

7. That though "the occasional intermixture of different families" is believed "to be necessary," it is not "by any means approved of, to mix two distinct breeds, with the view of uniting 'wholly' the valuable properties of both. This experiment has been frequently tried, but has, it is believed, never succeeded. The first cross frequently produces a tolerable animal, but it is a breed that cannot be continued.

Thus, were it possible, "by a cross between the new Leicestershire and Merino breeds of sheep, to produce an animal uniting the excellencies of both, that is, the carcase of the one with the fleece of the other, even such an animal so produced would be of little value to the breeder; a race of the same description could not be perpetuated; and no dependence could be placed upon the produce of such animals; they would be mongrels, some like 'the former,' and some like 'the latter,' and most of them with the faults of both."

In the intermixing of different families of animals as crosses, much care and nice attention must be bestowed not to unite such as cannot have the valuable qualities or properties which they may possess, or an improvement of them perpetuated, and afterwards certainly produced in their offspring.

8. That a particular formation *generally* indicates a disposition to get fat in all sorts of animals; but this rule is not *universal*, for we sometimes see animals of the most approved forms, who are *slow feeders*, and whose flesh is of a bad quality, which the graziers easily ascertain by the *touch*. The disposition to get fat is more generally found in some breeds than in others. The Scotch highland cattle are remarkable for being almost all *quick feeders*, although many of them are defective in shape. The Welsh cattle have but little disposition to get fat; not from being particularly ill-shaped, but because they are almost invariably what the graziers call *bad handlers.*"

Consequently, such animals as are well-shaped or approach nearest to the approved form, and which have the most proper *feel* in the flesh, should be employed in the raising and improving of such stock.

It cannot therefore be too strongly impressed upon the attention of the breeder and improver of different sorts of live stock, to be most particular in a just and suitably exact selection; in putting animals together that are not too closely related in their kindred, and in crossing the families and breeds of different kinds in the most fit and correct manner.

MISCELLANEOUS.

Population of Great Britain.

There have just been printed in two volumes folio, an "Enumeration Abstract" of the population of Great Britain for 1831, made from the returns and answers forwarded from each parish in England and Scotland, pursuant to an act of Parliament.

Population of England and Wales, from the year 1700 to the year 1830, including the army and navy, and merchant seamen.

1700—5,134,516	1750—6,039,648	1800—9,187,176
1710—5,066,337	1770—7,227,586	1810-10,407,556
1720—5,345,351	1780—7,814,827	1820-11,957,565
1730—5,687,993	1790—8,540,738	1830-13,840,751
1740—5,829,705		

The population of Ireland amounted to 7,767,401.

The increase of Great Britain since 1801, has always been about one and a half per cent. per annum.

The comparative proportion of families stands as follows in the centesimal parts.

	Agriculture.	Trade, &c.	Others.	Total.
Great Britain.	1811—35	44	21	100
	1821—33	46	21	100
	1831—28	42	30	100

Thus trade and manufactures appear to have somewhat increased between 1811 and 1821, agriculture to have somewhat declined, but between 1821 and 1831, the proportion of families employed in trade receded from 46 to 42 per cent. and the agricultural population from 33 to 28 per cent.

Summary of Great Britain.

	1801	1811	1821	1831
England	8,331,434	9,551,888	11,261,437	13,197,005
Wales	541,546	611,788	717,438	806,182
Scotland	1,599,061	1,805,688	2,093,456	2,365,114
Army, Navy,	470,598	640,530	319,300	277,017
	10,942,646	12,609,864	14,391,631	16,539,318

British Manufactures—The value of the woollen manufactures exported in 1831, amounted to £4,849,427; 1832, £5,479,866; and in 1833, to £6,511,780.

The cotton manufactures exported in 1831, amounted to £18,073,625; in 1832, £17,398,878; and in 1833, £19,659,672.

The linen manufactures exported in 1832, £1,783,432; and in 1833, £2,199,441.

The silk manufactures exported in 1831, £455,938; in 1832, £529,990; and in 1833, £740,294.

The average consumption of wool in 1829, '30, '31, '32, was less than 28,000,000 pounds. In 1834, it had risen to 39,618,503 pounds.

The exports from Great Britain of earthenware, glass, hardware and cutlery, iron, steel, copper, brass, lead, tin in bars, &c., tin-plates, salt, sugar refined, coals, and culm, in 1832, amounted to £31,751,792; and in 1833, to £31,521,558.

A great number of emigrants are constantly leaving Ireland for America. At Cork, six ships were receiving passengers, and the quay was covered with men, women and children, all preparing to embark, and many lamenting of having arrived too late to obtain an immediate passage. The Pallas had dropped down to Cove, with 220 on board.

The brig Penelope had sailed from Yougal with 240, and the Recovery was to leave the same port in a few days with 200 more, for Quebec.

Six large vessels were receiving passengers at Limerick for North America.

The Jane, of Halifax, left London on the first February, with passengers for New York. She had encountered severe gales, and on the 18th, was fallen in with by the Mariane Pauline, a Hamburg brig, which vessel took on board all the passengers and carried them to England.

The Angora Cat has one eye blue and the other yellow.

The *pip*, a disease of poultry, is a thin film, which grows under the tip of the tongue.

Eggs are hatched at 104 degrees of heat.

The liquor of the oyster contains innumerable embryos, with transparent shells—120 to the inch; and also other animalcules, as three kinds of worms, &c. They turn over with the tide.

The horns of the Abyssinian ox are about four feet long, and seven inches in diameter at their base.

The Abyssinian buffalo is double the size of our oxen.

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Rare Chance for Farmers and Victuallers; Millet; Mustard; Striking Contrast; New Invention; Preserving Bacon; A firm of Brick Makers in Mount Vernon, Ohio; Itch caused by an Insect; Mustard; Cultivation of; Fence Posts; Butter; Plants derive most of their Carbon from the air; Gumption; Flowering Bean; Horticultural Society, Anniversary Meeting and Report; Blight in Pear Trees; On Caterpillars; Live Stock; Dickson's Principles in Breeding Cattle; Population in Great Britain; British Manufactories, number of Emigrants; Angora Cat; Pip in Poultry; Embryos of Oysters; Horns of Abyssinian Ox.

BALTIMORE PRODUCE MARKET.

☞ *These Prices are carefully corrected every* WEDNESDAY.

	PER.	FROM	TO
BRANDY, Apple,	gallon.	$0 27	$—
Peach,	"	75	—
BEANS, white field,	bushel.	2 00	—
BEEF, on the hoof,	100lbs.	6 25	7 00
CORN, yellow,	bushel.	61	—
White,	"	61	—
COTTON, Virginia,	pound.	10	12
North Carolina,	"	11	12¼
Upland,	"	11	14
FEATHERS,	pound.	36	37
FLAXSEED,	bushel.	1 00	1 25
FLOUR—Best white wheat family,	barrel.	6 50	7 00
Do. do. baker's	"	5 75	6 25
Do. do. Superfine,	"	5 00	5 25
Super Howard street,	"	4 87	5 00
" " wagon price,	"	4 75	—
City Mills, extra,	"	5 12	5 25
Do.	"	4 75	4 87
Susquehanna,	"	5 12	—
Rye,	"	—	—
GRASS SEEDS, red Clover,	bushel.	4 00	4 50
Timothy (herds of the north)	"	—	—
Orchard,	"	3 00	—
Tall meadow Oat,	"	2 50	—
Herds, or red top,	"	1 25	—
HAY, in bulk,	ton.	15 00	16 00
Pressed,	100 lbs	—	95
HEMP, country, dew rotted,	pound.	6	7
" water rotted,	"	7	8
LIME,	bushel.	30	35
MUSTARD SEED, Foreign,	"	4 50	5 00
Domestic,	"	5 00	—
OATS,	"	37	—
OIL, linseed,	gallon.	85	87
PEAS, red eye,	bushel.	—	—
Black eye,	"	—	1 50
Lady,	"	—	—
PLASTER PARIS, in the stone,	ton.	3 25	—
Ground,	barrel.	1 37	—
PALMA CHRISTA BEAN,	bushel.	2 00	—
RAGS,	pound.	3	4
RYE,	bushel.	68	69
TOBACCO, crop, common,	100 lbs	3 50	5 00
" brown and red,	"	4 50	6 00
" fine red,	"	6 00	8 00
" wrappery, suitable for segars,	"	6 00	12 00
" yellow and red,	"	8 00	12 00
" yellow,	"	13 00	17 00
" fine yellow,	"	15 00	22 00
Seconds, as in quality,	"	4 00	5 00
" ground leaf,	"	5 00	9 00
Virginia,	"	4 00	—
Rappahannock,	"	3 00	4 00
Kentucky,	"	4 00	8 00
WHEAT, white,	bushel.	1 10	1 18
Red,	"	95	1 07
WHISKEY, 1st pf. in bbls.	gallon.	23½	24½
" in hhds.	"	21	21½
" wagon price,	"	20	—
WAGON FREIGHTS, to Pittsburgh,	100 lbs	1 50	—
To Wheeling,	"	1 62	—
		washed.	*unwash*
WOOL, Prime & Saxon Fleeces,	pound.	50 *to* 60	24 *to* 26
Full Merino,	"	40 50	20 24
Three fourths Merino,	"	33 40	18 20
One half do.	"	27 33	16 18
Common & one fourth Meri.	"	22 27	16 18
Pulled,	"	25 30	16 18

Peas and Beans are scarce and much wanted.

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,	barrel.	$2 00	$2 50
BACON, hams,	pound.	10	—
Shoulders,	"	—	8
Middlings,	"	—	8
BUTTER, printed, in lbs. & half lbs.	"	22	25
Roll,	"	12	18
CIDER,	barrel.	—	—
CALVES, three to six weeks old	each.	3 00	6 00
COWS, new milch,	"	15 00	21 00
Dry,	"	9 00	12 00
CORN MEAL, for family use,	100lbs.	1 30	1 37
CHOP RYE,	"	1 50	1 62
EGGS,	dozen.	11	—
FISH, Shad,		—	—
" salted,	barrel.	6 37	—
Herrings, salted, No. 1 & 2,	"	3 12	—
Mackerel, No. 1, 2 & 3,	"	4 75	6 25
Cod, salted,	pound.	3	—
LAMBS, alive,	each.	1 25	2 00
Slaughtered,	quart'r	37½	75
LARD,	pound.	8	—
POULTRY, Fowls,	dozen.	2 25	2 50
Chickens,	"	1 50	—
Ducks,	"	87	1 50
POTATOES, Irish,	bushel.	75	—
Sweet,	"	—	—
VEAL, fore quarters,	pound.	6	—
Hind do.	"	8	—

ADVERTISEMENTS.

MILLET SEED.

A SUPPLY of this seed just received and for sale at $1,50 a bushel, at the *Amer. Farm. Establishment.*
june 6

GREY SULPHUR SPRINGS, OF VIRGINIA.

THE Subscriber having purchased this Spring, has erected Buildings for the accommodation of a small Company, the present season; and contemplates making such other improvements as may become necessary.

THIS SPRING is situated near the celebrated and fashionable *Sulphur Springs of Virginia*, being 9 miles from the *Red Sulphur*, 23 miles from the *Salt Sulphur*, and but *three quarters* of a mile from *Peterstown*. In consequence of the small quanity of water hitherto yielded by this Spring, it attracted but little notice, and was known but to the immediate neighbourhood. Having opened the rock through which it flows, a large supply has been obtained, sufficient for the use of several hundred visitors.

The water is beautifully clear and cool, and leaves a greyish deposit, with a slight tinge of red on the surface, similar to that of the Red Sulphur Spring. Some of the water taken from the Spring and analyzed, has been found to contain the following ingredients—some of them in considerable quantities, viz: Carbonate of Soda, Carbonate of Lime, Sulphate of Soda, Oxide of Lithion, Oxide of Selenium, and Sulphuretted Hydrogen Gas—which, at the Spring, is in such quantities as to rise in bubbles. It is highly probable that other ingredients, which are in smaller quantities, will be found, on an analysis being made at the Spring, as the quantity of water brought away, did not permit of as minute an examination, as is necessary to determine whether other ingredients are not also held in solution. Those physicians to whomthis analysis has been submitted, have given it as their opinion, that these waters will prove especially beneficial in *Dyspeptic cases*, as well as other diseases. It is also highly probable from some experiments which have been made, that these waters may be alternated with those of the *Red Sulphur Springs* with much effect. There is a Post-Office at Peterstown, to which all letters should be directed.

Persons from the lower part of the Southern States, wishing to visit these Springs, should take the route by Charlotte, Salisbury and Salem, North-Carolina, and from the latter place, cross over by "*Goods*" Gap, to Newbern, and from thence to Giles Court-House and Peterstown. This is the shortest and believed to be as good, if not better than any other. The route through Tennessee to Newbern, may also be taken, but is longer.

The accommodations and style of living, as far as practicable, will be made to conform, to that usually found in the private families of the Southern States.

JOHN D. LEGARE.

Charleston, So. Ca. May 1, 1834—*June* 6.

TURNIP SEED.

A FULL SUPPLY of the following kinds on hand at this Establishment, at $1 per pound, viz:
Early White Dutch, Early Garden Stone,
White Flat, Long Tankard or Hanover,
Large White Norfolk, Red Round or Red Top,
Yellow Aberdeen, Ruta Baga or Swedish; also,
A small quantity of Dale's new Yellow Hybrid, represented as a very superior variety, at $2 per pound.
June 6, 1834.

BAKEWELL SHEEP.

ONE fine BUCK, one year old, bred by J. Barney, Esq. for sale for 100 dollars.
Also, several EWES at 50 dollars each, from same flock—Apply to I. I. HITCHCOCK,
june 3 American Farmer Establishment.

THE 7-8 SHORT HORN DURHAM BULL "DUKE" IS FOR SALE.

DUKE is 2 years old, red and white, by Parson, dam Isabella; Parson is by Bishop, dam, Moss Rose, (imported in 1821, bred by Mr. Ashcroft,) got by Phenomenon—Isabella is by the celebrated imported bull Lotharie, dam, Meg, by Billy Austin. Duke is of uncommon fine size and figure, pronounced by judges to have every point and appearance of a full bred. Price (to suit the times) $150.

Also—Several 3-4 blood HEIFERS, with their first calves, will be disposed of at $100 each. Application to be made (post paid) to I. I. HITCHCOCK,
May 30 American Farmer Establishment.

IMPROVED STOCK.

FOR SALE—A full blood Durham improved short horned BULL, two half blood yearling BULLS, also several half and three quarter blood HEIFERS of different ages. These cattle are immediately descended from the stock of the late R. Colling (of England) a celebrated breeder.

Apply to the Editor, or at the farm of the proprietor, near Taneytown, Frederick county, Maryland.
May 30 4t C. BIRNIE.

NOTICE.

I WILL sell my FARM on South River, at private sale. It contains upwards of a
THOUSAND ACRES,
and possesses more advantages than most farms. Any information which may be required will be afforded to those who will call upon me at my residence in this city, or on H. H. Harwood, Esq. at the Farmers' Bank of Maryland.
RICHARD HARWOOD of Thos.
Annapolis, May 30, 1834.

A FINE JACK AND JENNY—FOR SALE.

I HAVE the selling of a fine Jack and Jenny, which measure as follows, viz:

The Jack is of the extraordinary height of fifty-seven and a quarter inches, and was eight years old last spring.

He was imported from Malta, by Mr. C. Thorndike, of Boston, and is unquestionably one of the largest and most valuable animals of the kind in the United States. Price $800.

The Jenny is eight or nine years old, (not more,) is fifty and three-quarter inches in height, and a fine animal. While the above is the *lowest price* for the Jack, I will sell the two together for $1000. Letters in regard to these animals (post paid) will be promptly answered. Either of the animals will be sold separate from the other, if desired. I. I. HITCHCOCK.
May 30. American Farmer Establishment.

CUBA TOBACCO SEED.

JUST received from Matanzas, a few ounces of the true Cuba Tobacco Seed, from *la Vuelta Abajo*, warranted in prime order—Price $1.00 per ounce.
I. I. HITCHCOCK,
May 30. American Farmer Establishment.

WANTED,

BUCKWHEAT FOR SEED, by
I. I. HITCHCOCK,
May 9. American Farmer Establishment.

DEVON CATTLE.

THE subscriber has the selling of a considerable number and variety of these valuable cattle at prices *unusually low*, viz: Bulls from 75 to $100; Cows and Heifers from 60 to $80, and Calves, one year old and less, from 40 to $60. More particular information may be had by application to I. I. HITCHCOCK,
May 9. American Farmer Establishment.

POINTERS.

FOR SALE, several Pointer Puppies, littered 22d Nov.; they are of the very best blood, and are all most beautifully formed, and marked, being white with liver spots.
Price $10 each. Apply to I. I. HITCHCOCK.

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